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ABSTRACT

As the first in a planned longitudinal series, this study examined the academic performance in the initial undergraduate year of a stratified, random sample of 100 students from Vancouver secondary schools who enrolled in September 1976 in a full-time academic program at the Langara Campus of Vancouver Community College (VCC), and measured it against that of a matched-pair sample who enrolled in the University of British Columbia (UBC) at the same time. Study information was collected from institutional records and covered study pattern (full- or part-time by semester), completion rate (re-enrollment in September 1977), course withdrawal patterns and reasons for withdrawal, academic standing and units of credit as of both April and August 1977, and postsecondary units of credit according to secondary school attended. Findings showed that 56 VCC and 81 UBC students finished the academic year on a full-time basis; 44 VCC and 74 UBC students re-enrolled in their original institutions in September 1977; 43 VCC and 77 UBC students finished the year with no course withdrawals; 57 and 56 VCC and 45 and 55 UBC students had GPA's of 2.0 or better for April and August 1977, respectively; and 32 and 44 VCC and 45 and 55 UBC students earned 15 or more credit units for April and August 1977, respectively. Conclusions as to the differences between sample populations are made. (TR)

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A LONGITUDINAL STUDY OF A MATCHED-PAIR SAMPLE
OF COLLEGE AND UNIVERSITY STUDENTS

By

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A. INTRODUCTION

a. Background

The community colleges in British Columbia, unlike their counterparts in several other provinces, have always emphasized a comprehensive curriculum. An important component of this curriculum has been the "university transfer" programs which provide a student with the opportunity to complete the equivalent of either one or two years of a university degree.

Despite a contemporary view of the colleges as essentially vocational institutions, the number of students in academic programs has remained consistently high and an increasing number of students from these programs are transferring to the universities. In addition, academic programs attract many students seeking a general liberal education without any particular intention of pursuing university study.

Although the community college system in the province is now twelve years old, there remains a lack of understanding, even among educators and community leaders, as to the role, functions and characteristics of the college. The same doubts exist with respect to the academic stature of the colleges, the quality of the teaching faculties and the motivation of the students. The colleges are still not "community" institutions in the literal sense of the term. Involvement with the colleges has remained the prerogative of a relatively narrow segment of the immediate community. The counterparts of these colleges in the United States have gained more community acceptance but the evolutionary process has taken nearly fifty

years to accomplish.

One of the issues relating to the British Columbia colleges which has intrigued many educators is the question of what advantages, if any, students accrue by undertaking their initial undergraduate years in a college, rather than a university. The option is not, of course, open to all students. The universities have maintained a selective admission policy and are currently in the process of increasing their selectivity. Conversely, the colleges have pursued an "open" admission policy.

There has been considerable data gathered over the past ten years which characterizes the students enrolling in the various provincial institutions of post secondary education. It is apparent that colleges attract a more heterogeneous group of students than those attending the university. Heterogeneous, in this context, applies to academic record, aptitude, socio-economic background and aspirations for the future. Many students attending the colleges have excellent academic backgrounds and are eligible to enter the university, had they so chosen. To these students the colleges are valid options. To many others, the college is the only possible route to post-secondary study.

There has been considerable conjecture as to whether students benefit or lose by selecting the college-to-university route. Many educators concede that colleges place greater emphasis upon the quality of teaching among its faculty, tend to keep classes within reasonable size, and generally encourage faculty-student counselling outside the formal classroom. Conversely, others insist that the maturity of the university learning environment, the academic options available and the high standards make the university the most desirable location for the "serious" students.

Although many of the foregoing assumptions are resistant to testing, it is possible to examine some aspects of the general problem. The following project is an attempt to explore one dimension of the post-secondary process-a comparative study of the success of students attending a college or university in the city of Vancouver.

Essentially, two components are involved in the study; the students entering the University of British Columbia directly from a Vancouver secondary school and those enrolling in the "university transfer" program of Vancouver Community College. The study is longitudinal in design and will focus upon the academic progress of these students through the post-secondary system.

b. The Study

The study is a natural outgrowth of the series of British Columbia Colleges Articulation Studies conducted over the past five years by

B. C. Research.

The study examines the academic performance of a sample of 100 students from Vancouver secondary schools who entered the Langara Campus of Vancouver Community College (V.C.C.) on a full-time academic program in September 1976. The performance of this sample is measured against a comparable 100 student sample enrolling at the University of British Columbia (U.B.C.) in September 1976, also from Vancouver secondary schools.

The study is intended to be longitudinal. It is planned to track individual members of the samples over a period of at least four years, the normal time period usually required to complete a Bachelor Degree. Their progress through the post-secondary institutions will be monitored and

attempts will be made to contact any students leaving the educational system. While the sample sizes are fairly small, they are sufficient to serve as a demonstration of longitudinal monitoring.

This report, the first in a series planned for the study, examines the academic progress of these students after their first year of post-Secondary study.

c. College Sample

An alphabetically arranged computer list of all Vancouver secondary school students entering the Langara Campus of V.C.C. on an academic program in September 1976, was used for the selection of the 100 student college sample.

Since it was assumed from past experience that nearly all students entering the University of British Columbia would enroll on a full-time basis, the college sample was selected from those students enrolled at college on a full-time academic program. Six hundred twelve (69%) of the 888 students enrolling from the Vancouver secondary schools were in the full-time category (i.e. enrolled in five or more courses.)

Initially a stratified random sample of 300 college students was chosen. Students were selected from the list at random while ensuring that the 17 Vancouver secondary schools were represented in the sample in the same proportions as they contribute to the V.C.C. enrollment. For example, 31 students transferred to V.C.C. Langara on a full-time academic program from Britannia Secondary School. This group represented five per cent of the 612 student total. Therefore, a random sample of fifteen students (5% of the 300 college student sample) was selected to represent Britannia.

Further to this process, the students were selected in such a manner as to ensure that an approximately equal number of male and female students would be available for each secondary school.

In the subsequent matching of each college student to a particular university student, as explained in the following section on the University Sample, it was possible to match only 100 of the 300 college students on all four variables. Thus, while an initial sample of 300 students was chosen, the final college sample contained 100 students. This sample still had numbers from each Vancouver secondary school in the proportions as they contributed to the total full-time V.C.C. academic enrollment.

d. University Sample

A total of 1284 Vancouver secondary school graduates enrolled for the first time at U.B.C. in September of 1976. It was assumed that all of these enrolled on a full-time basis. The university sample was selected in such a way as to match the V.C.C. sample student with a similar student at the university. This was done in an effort to minimize the effect that social factors might have on members of the two samples. The "matched pair" concept was to be realized by matching students according to:

1. secondary school attended,
2. sex,
3. year of birth, and
4. grade point average for grade eleven and twelve.

These four variables were readily obtainable from existing educational records, and in a gross way may be considered as indicating students with similar backgrounds.

The list of 1284 university students was stratified by these four variables and compared with the college sample. University students

were then selected at random to match pair-wise with the college sample. Due to the generally higher grade point averages for students entering the university, some difficulty was experienced in matching members of the college sample with a university sample member. This resulted in the college sample being reduced to 100 college students who were matched on all four variables with 100 university students.

While the college sample started out being a stratified random sample, the resulting 100 students chosen are biased in favour of higher grade point averages. Similarly, the university sample is biased in favour of lower grade point averages. The two samples, however, are a matched-pair sample and are reasonably representative of each other.

B. OBSERVATIONS

a. Secondary School Transfer Rate (TABLE 1)

1. In September 1976, 888 students who had previously attended a Vancouver secondary school entered the academic program ("university transfer" program) at the Langara Campus of Vancouver Community College. Of these students, 612 enrolled on a full-time basis (that is, five or more courses for the first semester of enrollment.) At the same time 1284 students from Vancouver secondary schools entered the University of British Columbia. Thus, of the 2172 secondary school graduates, 41 per cent enrolled for the first time at the college.

2. The city of Vancouver may be divided along Main Street into an eastern and western section. Canada census tract data would broadly indicate the eastern section to be of a lower socio-economic status than the western portion. With U.B.C. located on the western tip of the Lower Mainland, this puts the eastern section of the city farther away geographically. In the case of transfer to the university, 58 per cent of the transfer students were from the western section secondary schools. The Langara Campus of V.C.C. is approximately situated on the dividing line. Fifty per cent of the secondary school transfers to college were from each section. It should be emphasized that these figures for secondary school transfer to college only apply to full and part-time students on a college "academic program" and do not include transfers to any of the career or technical programs.

b. Secondary School Grade Point Average (TABLE 2)

1. The earned cumulative grade point average (g.p.a.) for grade eleven and twelve was generally higher for those students

TABLE 1

VANCOUVER SECONDARY SCHOOL TRANSFER RATE TO V.C.C. LANGARA CAMPUS,
AND U.B.C., SEPTEMBER 1976, BY INDIVIDUAL SECONDARY SCHOOL

Vancouver Secondary School	Vancouver Secondary Transfer to V.C.C. Langara Campus on Academic Program						Vancouver Secondary Transfer to U.B.C.				
	Full & Part Time	Full Time Only	Sample				Full & Part Time		Matched Sample		
			Total	M	F				Total	M	F
	(N)	(N) (%)	(N)	(N)	(N)		(N)	(%)	(N)	(N)	(N)
Britannia	50	31 05	5	2	3		49	04	5	2	3
Lord Byng	67	44 07	7	3	4		92	07	7	3	4
Churchill	75	59 10	10	5	5		116	09	10	5	5
David Thompson	54	34 06	6	3	3		53	04	6	3	3
Eric Hamber	77	51 08	3	4	4		129	10	8	4	4
Gladstone	40	30 05	5	3	2		65	05	5	3	2
John Oliver	64	49 08	8	4	4		81	06	8	4	4
Killarney	58	42 07	7	4	3		70	05	7	4	3
King George	18	15 02	2	1	1		20	02	2	1	1
Kitsilano	41	24 04	4	2	2		69	05	4	2	2
Magee	60	39 06	6	3	3		94	07	6	3	3
Point Grey	45	33 05	5	3	2		110	09	5	3	2
Prince of Wales	61	47 08	8	4	4		119	09	8	4	4
Charles Tupper	44	27 04	4	2	2		60	05	4	2	2
Templeton	46	28 05	5	2	3		53	04	5	2	3
Technical	50	34 06	6	3	3		59	05	6	3	3
Windemere	38	25 04	4	2	2		45	04	4	2	2
TOTAL	888	612 100	100	50	50		1284	100	100	50	50

TABLE 2

MEAN GRADE ELEVEN AND TWELVE GRADE POINT AVERAGE OF
COLLEGE TRANSFER SAMPLE AND UNIVERSITY TRANSFER
SAMPLE, BY SEX, AND SECONDARY SCHOOL ATTENDED

Vancouver Secondary EAST SIDE School	Sample		Mean Grade 11 & 12 G.P.A. of Sample (V.C.C. & U.B.C.) ¹	
	Male (N)	Female (N)	Male	Female
Britannia	2	3	2.5	2.8
Gladstone	3	2	2.4	2.6
Killarney	4	3	2.4	3.1
John Oliver	4	4	2.3	2.5
Templeton	2	3	2.8	2.8
David Thompson	3	3	2.7	2.6
Charles Tupper	2	2	2.7	2.7
Technical	3	3	2.4	2.7
Windemere	2	2	2.9	3.1
TOTAL	25	25	2.5	2.7
Vancouver Secondary WEST SIDE School				
	Male (N)	Female (N)	Male	Female
Byng	3	4	2.6	2.1
Churchill	5	5	2.4	2.7
Eric Hamber	4	4	2.7	2.8
King George	1	1	2.7	3.1
Kitsilano	2	2	2.6	3.1
Magee	3	3	2.4	2.8
Point Grey	3	2	2.5	3.3
Prince of Wales	4	4	2.5	2.7
TOTAL	25	25	2.5	2.7
TOTAL (East and West side)	50	50	2.5	2.7

¹The mean Grade Point Average for male and female students applies to both the V.C.C. Langara and U.B.C. samples since the U.B.C. sample was matched by G.P.A. to the V.C.C. Langara sample.

entering U.B.C. than for those entering V.C.C. This was the major factor preventing a complete matching of the 300 college student sample with university students.

2. While the mean g.p.a. for the matched pair samples used in this study is naturally the same, the actual g.p.a. for the 300 college students needed in order to obtain the 100 student matched pair sample was found to be somewhat lower for both east and west side schools. In the 300 student sample, the mean grade point average for east side schools was 2.1 for male students and 2.4 for females; for west side schools the figure was 2.2 for males and 2.5 for females.

3. In all cases the mean g.p.a. is lower for the male student when compared with the female student. The difference in mean g.p.a.'s for male and female students shown in Table 2 apply to both the V.C.C. Langara and U.B.C. samples since the U.B.C. sample was matched by Grade point average to the V.C.C. Langara sample.

c. Study Pattern (TABLE 3)

In the case of the college, the study pattern (that is, full or part-time enrollment) may be reported by semester and/or by academic year. In this report, for a specific college semester, enrollment by a student in five or more courses is considered as full-time enrollment. Over the period of the academic year (that is, September to August) full-time status would be recorded for a college student who enrolled in a total of at least ten courses. For example, it would be possible for a college student to be enrolled full-time for one semester (at least five courses) and for another two semesters as part-time with say three courses for each of the two semesters, and yet be classed for the academic year as a full-

time student with a total of eleven courses. For both institutions the study pattern is identified at the start of the semester or session prior to "withdrawals."

1. While all the college sample were enrolled full-time for their first semester (Fall 1976), full-time enrollment in the Winter semester was recorded for only 73 (78%) of the 93 students who continued for that semester.
2. Over the identical time period, that is September 1976 to April 1977, a full-time enrollment of 96 per cent was recorded for the university sample.
3. While the Spring (Interession) and Summer sessions at U.B.C. are designed for part-time study only, the same is not the case for the V.C.C. Summer semester. The majority, however, of the V.C.C. sample who returned for the Summer semester of 1977 enrolled on a part-time basis. Two (8%) of the 26 students were enrolled at a full-time level.

TABLE 3

STUDY PATTERN (FULL-TIME OR PART-TIME),
BY SEMESTER FOR V.C.C. LANGARA CAMPUS
SAMPLE, AND BY SESSION FOR U.B.C. SAMPLE

Students Enrolled For:	V.C.C. LANGARA			Students Enrolled For:	U.B.C.		
	Full Time (N)	Part Time (N)	Total (N)		Full Time (N)	Part Time (N)	Total (N)
Semester				Session			
Fall 1976	100	-	100	Winter 1976-1977	96	4	100
Winter 1977	73	20	93				
Summer 1977	2	24	26	Spring and Summer 1977	-	19	19

d. Completion Rate (TABLE 4)

1. At the completion of a twelve month period, that is, from September 1976 until the end of August 1977, less than one of every two (44%) of the college sample re-enrolled in September 1977. Equal percentages (22% each) of male and female students re-enrolled. In the case of the university sample, nearly three of every four students (74%) re-enrolled at U.B.C., with a slightly greater proportion of male students re-enrolling.

2. Twenty-one members of the college sample "transferred" to either U.B.C. or S.F.U. and were enrolled at the university for the start of the second year of post-secondary education. Six members of the U.B.C. sample "transferred" to either V.C.C. or S.F.U. Of the original 100 student college sample, 65 were re-enrolled at a post-secondary institution for September 1977, while 80 of the university sample continued their post-secondary education at that time. Continuation with post-secondary education was more likely for the male than the female student.

3. The very nature of the two institutions would seem to favour full-time enrollment at the university over the college. Over the twelve month academic year, 86 college sample members were classed as full-time students. In the case of the university sample, 96 students were identified as full-time for the twelve month period under consideration. In both samples, male students were more likely to enroll on a full-time basis than females.

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TABLE 4

ORIGINAL ENROLLMENT AND COMPLETION FOR ACADEMIC YEAR, SEPTEMBER 1976
TO AUGUST 1977, FOR V.C.C. LANGARA CAMPUS SAMPLE AND U.B.C. SAMPLE

	V.C.C. LANGARA			U.B.C.		
	Male (N)	Female (N)	Total (N)	Male (N)	Female (N)	Total (N)
A. FULL TIME Enrollment ¹	46	40	86	49	47	96
1. Completed on F.T. basis ²	29	27	56	42	39	81
a. Still enrolled ³	11	14	25	38	31	69
b. Not enrolled	18	13	31	4 ^b	8	12 ^b
i. Transfer to:	12 ^a	7 ^a	19 ^a	1 ^b	-	-
ii. Not known	6	6	12	3	8	11
2. Completed on P.T. basis ⁴	17	12	29	5	6	11
a. Still enrolled	8	6	14	1	2	3
b. Not enrolled	9 ^b	6	15 ^b	4 ^c	4 ^c	8 ^c
i. Transfer to:	1 ^b	-	1 ^b	3 ^c	1 ^c	4 ^c
ii. Not known	8	6	14	1	3	4
3. Withdrawal all courses	-	1	1	2	2	4
B. PART TIME Enrollment	4	10	14	1	3	4
a. Still enrolled	3	2	5	-	2	2
b. Not enrolled	1	8 ^a	9 ^a	1	1 ^c	2 ^c
i. Transfer to:	-	1 ^a	1 ^a	-	1 ^c	1 ^c
ii. Not known	1	7	8	1	-	1
c. Withdrawal all courses	-	-	-	-	-	-
C. TOTAL Enrollment	50	50	100	50	50	100
a. Still enrolled	22	22	44	39	35	74
b. Not enrolled	28	27	55	9	13	22
i. Transfer to U.B.C.	12	8	20	na	na	na
S.F.U.	1	-	1	1	-	1
V.C.C.	na	na	na	3	2	5
ii. Not known	15	19	34	5	11	16
c. Withdrawal all courses	-	1	1	2	2	4
D. Total enrolled at either V.C.C., U.B.C. or S.F.U. as of September 1977	35	30	65	43	37	80

¹ Full Time: original enrollment of 15 units or more for academic year. These figures differ from those given in Table 3 since Table 3 reports full time enrollment by individual semesters.

² Completed 12 month period enrolled in total of 15 or more units (after withdrawals).

³ Enrolled for academic year commencing September 1977.

⁴ Withdrew from courses so that the total units still enrolled at end of academic year (August 1977) less than 15.

^a Transfer to U.B.C.

^b Transfer to S.F.U.

^c Transfer to V.C.C.

4. University sample members were far more likely to complete the year on a full-time basis than members of the college sample.

The completion rate (after course withdrawals) on a full-time status was 81 (84%) of the original 96 students so enrolling at the university. In the case of the college students the figure was 56 (65%) of the 86 original full-time students.

e. Course Withdrawal Pattern (TABLE 5)

1. On a per course basis, percentage wise, the withdrawal rate for the college sample and the university sample was similar, ten per cent for the former and nine per cent for the latter. Over the eight month period covering the Fall and Winter semesters at the college, a total of 953 courses were taken. Students withdrew from 96 courses. The university sample enrolled in 552 courses and withdrew from 48.

2. The withdrawal rate by course for the college Summer semester 1977 was particularly high. Students withdrew from 13 (20%) of the 66 courses in which enrolled. This may be compared with a seven per cent withdrawal rate from the university sample during the Spring (Intersession) and Summer sessions.

3. The average course load per student was slightly higher for the university sample (5.52 courses for the Winter session) over the college sample (5.11 and 4.75 for the Fall and Winter sessions respectively.) In the case of the college sample, the actual course load dropped slightly in the Winter semester, and was reduced considerably for the Summer semester. The average course load taken by the university sample during the Spring and Summer session combined was even lower than at the college, although it should be remembered that in the case of the university it is not possible to take a full course load during the Spring/Summer session as it is at the college for the Summer semester.

TABLE 5

COURSE NON-PERSISTENCE PATTERN BY SEMESTER FOR V.C.C. LANGARA CAMPUS
SAMPLE, AND BY SESSION FOR U.B.C. SAMPLE

Semester	V.C.C. LANGARA					Session	U.B.C.				
	Total Courses Taken	Course Withdrawals	Student Enrollment	Average Courses Per Student	Total Courses Taken		Course Withdrawals	Student Enrollment	Average Courses per Student		
	(N)	(N)	(%)	(N)	(N)		(N)	(%)	(N)		
Fall 1976	511	52	10	100	5.11	Winter 1976-1977	552	48	09	100	5.52
Winter 1977	442	44	10	93	4.75						
TOTAL	953	96	10								
Summer 1977	66	13	20	26	2.53	Spring and Summer 1977	28	2	07	19	1.47

f. Reasons for Withdrawal (TABLE 6 and TABLE 7)

1. While the course withdrawal rate between the two samples was relatively the same, the actual number of students dropping at least one course during the first year in attendance at a post-secondary institution was considerably higher for the college sample.
2. A total of 57 members of the college sample withdrew from one or more courses during the time period under consideration. In the case of the university sample only 23 students withdrew from one or more courses.
3. The indicated reason for withdrawal most often given by the college students was a "falling behind" in course work. In both Fall and Winter semesters, approximately one third of the students gave this reason.
4. The often quoted "financial" reason for withdrawal was reported by a relatively small number of students, about one in ten. In these cases it was noted that the "financial" reason did not become a problem until the semester was at least two months old.
5. In most cases, regardless of reason, withdrawal from courses occurred relatively late in the semester with nearly two out of every three withdrawals occurring mid way through the semester.
6. U.B.C. records do not indicate reasons for withdrawal or for the "Did Not Write" category. Recording of reasons for withdrawal from individual courses at V.C.C. has ceased as of the Summer semester of 1977.

TABLE 6

STUDENT WITHDRAWAL FROM COURSES, SEPTEMBER 1976 TO AUGUST 1977

Student Enrolled For:	Original Enrollment:		Courses from which withdrawal occurred					Total	None
	Courses	Units	1	2	3	4 or more	All		
	(N)	(N)	Students Withdrawing (N)						
			V.C.C.	LANGARA					
One Semester	5	7.5	1	2	-	1	1	5	1
	6	9.0	-	1	-	-	-	1	-
		Total	1	3	-	1	1	6	1
Two Semesters	7	10.5	1	2	-	-	-	3	-
	8	12.0	1	-	-	-	-	1	2
	9	13.5	2	2	-	1	-	5	3
	10	15.0	6	7	-	3	-	16	29
	11	16.5	-	-	-	-	-	-	3
	12	18.0	-	-	1	-	-	1	2
	Total		10	11	1	4	-	26	39
Three Semesters	10	15.0	-	-	-	1	-	1	-
	11	16.5	4	2	-	-	-	6	-
	12	18.0	2	4	1	1	-	8	3
	13	19.5	3	2	-	-	-	5	-
	14	21.0	2	1	-	-	-	3	-
	15	22.5	-	1	-	-	-	1	-
	17	25.5	1	-	-	-	-	1	-
	Total		12	10	1	2	-	25	3
TOTAL (V.C.C.)			23	24	2	7	1	57	43
U. B. C.									
Winter Session	1	3.0	-	-	-	-	-	-	1
	3	15.0	1	-	-	-	-	1	3
	4	15.0	1	1	-	-	-	2	3
	5	15.0	4	-	-	-	3	7	22
	5	16.5	-	-	-	-	-	-	3
	6	15.0	3	2	1	-	2	8	28
	7	16.5	-	-	-	-	-	-	1
	7	18.0	1	-	-	-	-	1	-
	8	16.0	1	-	-	-	-	1	1
	Total		11	3	1	-	5	20	62
Winter and Spring/Summer Session	6	18.0	1	-	-	-	-	1	1
	7	18.0	1	-	-	-	-	1	9
	8	19.5	-	-	-	-	-	-	1
	8	21.0	-	1	-	-	-	1	3
	9	24.0	-	-	-	-	-	-	1
	Total		2	1	-	-	-	3	15
TOTAL (U.B.C.)			13	4	1	-	5	23	77

TABLE 7

NUMBER OF COURSES¹ FOR WHICH WITHDRAWAL OCCURRED ACCORDING TO TIME OF WITHDRAWAL
AND INDICATED REASON FOR WITHDRAWAL FOR THE V.C.C. LANGARA SAMPLE²

Time of Withdrawal	Semester ³	Reason Indicated For Withdrawal (per Course)										Total
		No time to study	Financial	Personal	Program too heavy	Courses not suitable	Falling behind	Course not required for objectives	Not interested	Student/ instructor conflict	Not given	
		(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	
First and Second week	Fall	-	-	-	-	-	1	-	-	-	-	1
	Winter	3	-	-	-	-	-	-	-	-	-	3
Third and Fourth week	Fall	1	-	-	1	-	-	2	1	1	-	6
	Winter	-	-	2	1	-	1	-	-	-	-	4
Fifth and Sixth week	Fall	1	-	-	2	-	2	-	-	-	-	5
	Winter	-	-	-	-	-	1	-	1	-	-	2
Seventh and Eighth week	Fall	-	4	-	-	-	5	-	-	-	1	10
	Winter	-	-	-	1	1	3	1	-	-	-	6
After eighth week	Fall	1	-	5	2	1	11	-	2	2	6	30
	Winter	1	5	-	5	3	10	1	2	-	2	29
TOTAL	Fall	3	4	5	5	1	19	2	3	3	7	52
	Winter	4	5	2	7	4	15	2	3	-	2	44

¹Figures given are for individual courses and not for individual students.

²U.B.C. records do not indicate reasons for withdrawal or for "Did Not Write" category.

³V.C.C. Langara has now stopped recording reasons for withdrawal and hence the summer semester is not included.

g. Achievement

Actual achievement of the college and university samples is reported two ways.

1. Academic standing. The academic standing of the college sample is reported by cumulative college grade point average, where numerical values are assigned to the letter grades, that is, A = 4, B = 3, C = 2, and P (pass) = 1. The term "Credit for courses with A, B, or C" was created for the college situation where the student on a full or part-time program finished the semester enrolled in a given number of courses with a grade of A, B, or C in at least 60 per cent of the courses but not all of the completed courses. This category is as close as possible to the university standing "Credit for courses passed." For example, a college student enrolled in five courses may have received grades of B, C, C, P, and F (fail). A calculation of the grade point average would give an average of 1.6. However, since at least three courses (60%) were successfully completed (i.e. B, C, C) the standing would be recorded as "Credit for courses with A, B, or C." On the other hand, if the student received grades of C, C, P, and F, the grade point average would be 1.25 and would be recorded as such since less than 60 per cent of the courses were successfully completed.

The academic standing for the university sample was reported in the usual manner of the university. The university records a standing of "Credit granted in courses passed." This standing is assigned in cases of a full or partial program where at least 60 per cent of the full program is passed and no supplemental privileges are granted.

2. Units of credit earned. This method of assessing students at the two institutions is possibly a more valid technique than the academic standing. Normally, a credit of three units for a one semester course is granted by the college upon completion of the course with a grade of A, B, C, or P (pass). It should be noted that to be comparable to U.B.C. the number of college units granted per course, of three, is halved. Therefore, two college courses in a particular subject field when successfully completed would receive six units of credit from the college. This would be comparable to the three units of credit earned at U.B.C. for a similar number of credit hours. For this study, college units are reported in the manner used by U.B.C. In addition, members of the college sample were granted credit for a course successfully completed only if the student received a grade of A, B, or C, but not P (pass).

A problem in the comparable assessment of students is the differing concept of a normal academic year. For the university, a normal academic Year is considered as the Winter session, that is, a September to April session. The Spring session, better known as the Intersession, and the seven week Summer session offers an opportunity for the university student to pick up on deficient courses as well as lightening a course load for a future Winter session. For the most part, then, the university academic year might be considered as the time period from September to the following April.

The situation for the college may be considered as somewhat different. While the majority of college students would look upon the Fall and Winter semesters (a calendar period from September to April) as a usual academic year, it is possible, in theory, to complete a one year academic period of study by taking any two of the three semesters offered under the tri-

semester system, or to spread the normal academic year courses over the three semesters, that is, Fall, Winter, and Summer.

For this study the academic standing and units of credit earned have been assessed at the end of the two time periods. The first time period is the end of April (completion of two college semesters, or the university Winter session) and secondly, at the end of August where the college student has had the opportunity of twelve months of study over a period of three semesters and the university student has had the chance to attend the Spring and/or Summer session.

h. Academic Standing - April 1977 (TABLE 8)

1. At the end of a two semester time period, 57 per cent of the college sample had a cumulative grade point average of 2.0 or better. This did not include any college students who may have earned a g.p.a. of 2.0 or better but were recorded under the category of "Credit for courses with A, B, or C" for reasons previously given. This makes it comparable to the university procedure.

2. For the university sample, 45 per cent had a standing of "pass" or better, a standing that could be considered as equivalent to the college 2.0 g.p.a. or better.

3. At this particular time period, the university "fail" and "complete withdrawal" rate was twice that found for the college (U.B.C., 10%; V.C.C., 5%).

4. For both samples, college and university, it was quite clear that the female student was far more likely to complete the minimum 15 units of credit with a higher overall academic standing than her male counterpart. For example, in the college sample 22 per cent of the female students received a cumulative g.p.a. of 3.0 or better; for the male

TABLE 8

STANDING EARNED BY 1. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE FALL AND WINTER SEMESTER AT V.C.C. LANGARA CAMPUS, AND BY 2. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE WINTER SESSION AT U.B.C., BY SEX (AS OF APRIL 1977)

Standing	V.C.C. LANGARA					Standing	U.B.C.				
	Full Time		Part Time		Total		Full Time		Part Time		Total
	Male (N=44)	Female (N=37)	Male (N=6)	Female (N=13)			Male (N=49)	Female (N=47)	Male (N=1)	Female (N=3)	
	(%)	(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)	(%)
GPA 4.0 (A)	2	-	-	-	1	80-100% (First)	2	4	-	-	3
GPA 3.0-3.9 (B)	9	22	-	31	16	65-79% (Second)	27	34	-	-	29
GPA 2.0-2.9 (C)	43	46	17	23	40	50-64% (Pass)	14	13	-	-	13
GPA 0.0-1.9 (P/F)	5	5	-	-	4	0-49% (Fail)	6	6	-	-	6
Credit for courses with A, B, or C	41	24	83	46	38	Credit for courses passed	25	15	-	33	20
						Partial program	-	-	100	33	2
						One supp. granted	22	24	-	33	23
Withdraw (All courses)	-	3	-	-	1	Withdraw (All courses)	4	4	-	-	4
TOTAL	100	100	100	100	100		100	100	100	100	100

members the percentage figure was 11, one half the rate for females.

5. A similar disparity between male and female university sample members was observed, although the difference was not as pronounced as for the college sample. In the case of the university, 38 per cent of the female full-time students received at least a "second class" standing as contrasted to only 29 per cent of the males.

6. Generally speaking, it was observed that a greater proportion of the university sample obtained higher academic standings (first or second class) than did the college sample (g.p.a. of 3.0 or over).

1. Units of Credit Earned - April 1977 (TABLE 9)

1. One third of the college sample (32%) obtained at least 15 comparable university units, that is, had completed a minimum of first year college on the academic transfer program. In this case the tabulation of units included only those college courses in which the student obtained a grade of A, B, or C.

2. Just under one half (45%) of the university sample earned the required 15 units.

3. For both samples the completion rate was higher for females than males (V.C.C.: female = 36%, male = 28%; U.B.C.: female = 48%, male = 42%).

1. Academic Standing - August 1977 (TABLE 10)

1. Some slight shift in pattern was noted for the college sample. For example, the extra four month semester altered five students from a part-time study category to a full-time category.

TABLE 9

UNITS OF CREDIT EARNED BY 1. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE FALL AND WINTER SEMESTER AT V.C.C. LANGARA CAMPUS, AND BY 2. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE WINTER SESSION AT U.B.C.

(AS OF APRIL 1977)

Units	V.C.C. LANGARA ¹			U. B. C. ²		
	Male (N=50)	Female (N=50)	Total (N=100)	Male (N=50)	Female (N=50)	Total (N=50)
	(%)	(%)	(%)	(%)	(%)	(%)
0-5	18	10	14	8	10	9
6-9	22	10	16	2	14	8
10-11	-	8	4	8	2	5
12	18	22	20	34	24	29
13-14	14	14	14	6	2	4
15	26	28	27	40	40	40
16 & over	2	8	5	2	8	5
TOTAL	100	100	100	100	100	100

¹V.C.C. Langara units are tabulated for grades received of A, B, and C, and courses are multiplied by 1.5 to give units.

²U.B.C. units are granted for standings of "pass," "second class," and "first class."

TABLE 10

STANDING EARNED BY 1. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE FALL, WINTER AND SUMMER SEMESTER AT V.C.C. LANGARA CAMPUS, AND BY 2. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE WINTER, SPRING AND SUMMER SESSION AT U.B.C., BY SEX

(AS OF AUGUST 1977)

V.C.C. LANGARA						U.B.C.					
Standing	Full Time		Part Time		Total	Standing	Full Time		Part Time		Total
	Male (N=46)	Female (N=40)	Male (N=4)	Female (N=10)			Male (N=49)	Female (N=47)	Male (N=1)	Female (N=3)	
	(%)	(%)	(%)	(%)	(%)		(%)	(%)	(%)	(%)	(%)
GPA 4.0 (A)	2	-	-	-	1	80-100% (First)	2	4	-	-	3
GPA 3.0-3.9 (B)	11	20	-	30	16	65-79% (Second)	31	32	-	-	30
GPA 2.0-2.9 (C)	37	50	-	20	39	50-64% (Pass)	27	18	-	33	22
GPA 0.0-1.9 (P/F)	4	4	-	10	5	0-49% (Fail)	6	6	-	-	6
Credit for courses with A, B, or C	46	22	100	40	38	Credit for courses passed	28	30	-	-	28
						Partial program	-	-	100	33	2
						One supp. granted	2	6	-	33	5
Withdraw (All courses)	-	4	-	-	1	Withdraw (All courses)	4	4	-	-	4
TOTAL	100	100	100	100	100		100	100	100	100	100

2. The overall cumulative grade point average for the college sample, however, did not basically alter.
3. The members of the university sample did improve their overall standing through the opportunity to study either at the Spring Intersession and/or Summer session, or to write supplemental examinations. The percentage of university students with a standing of "pass" or better increased by ten per cent to a 55 per cent figure.
4. Greater improvement was noted for the male members of the university sample. The tabulation of "pass" or better standings at the university for August 1977 indicated just under two-thirds (60%) of the male sample obtaining this standing as compared with just over one half (54%) of the females.

k. Units of Credit Earned - August 1977 (TABLE 11)

1. The opportunity for a third semester enabled the college sample to improve their position as far as unit completion was concerned. By August, 44 per cent of this sample had obtained a completion of 15 or more units, up from the 32 per cent figure in April.
2. The university sample in the same instance had also improved their completion rate to a figure of 55 per cent, up ten per cent from the April figure.
3. Interestingly enough, it is apparent that the male college student who has completed the 15 units of comparable university credit has less of a tendency than the female student to remain enrolled at the college. One half of the males not enrolled at V.C.C. in September 1977 had 15 or more earned units of credit. A slightly lesser percentage of females (46%) who were not currently enrolled had also received 15 or more units.

TABLE 11

UNITS OF CREDIT EARNED BY 1. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF THE FALL, WINTER AND SUMMER SEMESTER AT V.C.C. LANGARA CAMPUS, AND BY 2. VANCOUVER SECONDARY SCHOOL SAMPLE AT COMPLETION OF WINTER, SPRING AND SUMMER SESSION AT U.B.C. (AS OF AUGUST 1977)

Units	V.C.C. LANGARA ¹					U.B.C. ²				
	Currently Enrolled Sept. 1977		Not Enrolled Sept. 1977		Total	Currently Enrolled Sept. 1977		Not Enrolled Sept. 1977		Total
	Male (N=22)	Female (N=22)	Male (N=28)	Female (N=28)		Male (N=39)	Female (N=35)	Male (N=11)	Female (N=15)	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
0-5	14	-	18	18	13	3	6	27	20	9
6-9	36	9	14	4	15	-	6	9	33	8
10-11	-	9	-	7	4	-	-	9	-	1
12	14	18	11	21	16	21	20	37	20	22
13-14	14	9	7	4	8	5	3	9	7	5
15	9	32	43	25	28	61	45	-	20	43
16 & over	14	23	7	21	16	10	20	9	-	12
TOTAL	100	100	100	100	100	100	100	100	100	100

¹V.C.C. Langara units are tabulated for grades received of A, B, and C, and courses are multiplied by 1.5 to give "units of credit."

²U.B.C. units are granted for standings of "pass," "second," and "first class."

4. However, of the 22 females who re-enrolled at college in September 1977, over half (55%) had earned at least 15 units during the previous 12 month period. Unexpectedly, an equal number of male students (22) re-enrolled at the college. Only 23 per cent of this group had earned 15 or more units during the previous semesters.

5. In total, from the college sample, 44 male and female students re-enrolled for a second year of college study. Of these, 17 students (39%) would be continuing their college study at the equivalent of second year university level.

6. In contrast, from the university sample, 74 students re-enrolled at U.B.C. for the September 1977 Winter session. Of these students, 51 (69%) had earned sufficient credit during the previous year to enroll at a second year level. In this case there was little difference in percentage of male and female students.

1. Post-secondary Units of Credit According to Secondary School Attended (TABLE 12)

1. While overall academic ability as measured by grade eleven and twelve grade point average showed no difference for sample members who had attended east side schools when compared to west side schools, there was some slight difference in post-secondary units of credit received by students from different sides of the city.

2. For the college sample, 40 per cent of east side students earned 15 or more units as compared with 48 per cent of west side students.

3. Of those students in the university sample, 50 per cent of east side students and 60 per cent of west side students received at least 15 units.

TABLE 12

UNITS OF CREDIT EARNED AFTER THREE SEMESTER TIME PERIOD AT V.C.C. LANGARA CAMPUS
BY VANCOUVER SECONDARY SCHOOL SAMPLE AND AT U.B.C. AFTER WINTER, SPRING AND
SUMMER SESSION BY VANCOUVER SECONDARY SCHOOL SAMPLE ACCORDING TO SCHOOL ATTENDED
(AS OF AUGUST 1977)

Units	EAST SIDE ¹ SECONDARY SCHOOLS						WEST SIDE ² SECONDARY SCHOOLS					
	V.C.C.		U.B.C.		Total		V.C.C.		U.B.C.		Total	
	Male	Female	Male	Female	VCC	UBC	Male	Female	Male	Female	VCC	UBC
	(N=25)	(N=25)	(N=25)	(N=25)	(N=50)	(N=50)	(N=25)	(N=25)	(N=25)	(N=25)	(N=50)	(N=50)
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
0-5	16	12	12	4	14	8	20	8	4	16	14	10
6-9	24	8	4	16	16	10	20	4	-	12	12	6
10-11	-	12	4	-	6	2	-	4	-	-	2	-
12	16	16	24	20	16	22	8	24	24	20	16	22
13-14	8	8	8	8	8	8	12	4	4	-	8	2
15	20	24	40	36	22	38	36	32	56	40	34	48
16 & over	16	20	8	16	18	12	4	24	12	12	14	12
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

¹Secondary schools located east of Main Street

²Secondary schools located west of Main Street

4. College and university female students from east side schools were more likely to complete at least 15 units of credit than males.

5. The above trend was reversed in the case of west side students attending U.B.C. In this case 68 per cent of males completed the 15 units as compared to 52 per cent of the females.

m. Grade Point Average Comparison (TABLE 13)

1. When the college grades of A, B, C, P, and F, were equated to the university standings of "first class," "second class," "pass" and "fail" and converted to a numerical grade point average it was observed that approximately four of ten (41%) college sample members earned a grade point average greater than their "pair partner" in the university sample.

2. Just under one half (45%) of the college students earned a grade point average less than their "pair partner" at university.

n. Units of Credit Earned Comparison (TABLE 14 and TABLE 15)

1. Just over one third of the college sample (36%) earned more units of credit during the September to April time period than did their "pair partner" at U.B.C.

2. Just under one half (47%) of the V.C.C. sample earned less credits than their paired counterpart at the university.

3. A slight improvement on the part of the college sample was observed when the full 12 month period was considered. For the time period September to August, 41 per cent of the college sample earned

TABLE 13

COMPARISON OF GRADE POINT AVERAGE EARNED AT V.C.C. LANGARA CAMPUS, AND AT U.B.C., SEPTEMBER 1976 TO APRIL 1977

V.C.C. Sample Cum. G.P.A. ¹		Male (N=50)	Female (N=50)	Total (N=100)
		(%)	(%)	(%)
Greater than U.B.C. Sample	a. by over 1.0	18	24	21
	b. by 0.6 to 1.0	2	12	7
	c. by 0.2 to 0.5	14	12	13
	Total	34	48	41
Equal to U.B.C. Sample	(plus or minus 0.1)	12	16	14
Less than U.B.C. Sample	a. by 0.2 to 0.5	22	10	16
	b. by 0.6 to 1.0	12	8	10
	c. by over 1.0	20	18	19
	Total	54	36	45
TOTAL		100	100	100

¹Calculation based on all grades received (i.e. A, B, C, P or F).

TABLE 14

COMPARISON OF UNITS OF CREDIT EARNED AT V.C.C. LANGARA CAMPUS
AND U.B.C., SEPTEMBER 1976 TO APRIL 1977
(AS OF APRIL 1977)

V.C.C. Sample ¹ Units of credit		Male (N=50)	Female (N=50)	Total (N=100)
		(%)	(%)	(%)
<u>More than</u> <u>U.B.C. Sample</u>	a. by over 9 units	6	10	8
	b. by 7 to 9 units	-	4	2
	c. by 4 to 6 units	6	8	7
	d. by 1 to 3 units	18	20	19
	Total	30	42	36
<u>Equal to</u> <u>U.B.C. Sample</u>		20	14	17
<u>Less than</u> <u>U.B.C. Sample</u>	a. by 1 to 3 units	18	20	19
	b. by 4 to 6 units	14	10	12
	c. by 7 to 9 units	8	4	6
	d. by over 9 units	10	10	10
	Total	50	44	47
TOTAL		100	100	100

¹ Units earned are based on those college courses completed with a grade of A, B, or C.

TABLE 15

COMPARISON OF UNITS OF CREDIT EARNED AT V.C.C. LANGARA CAMPUS
AND U.B.C., SEPTEMBER 1976 TO AUGUST 1977
(AS OF AUGUST 1977)

V.C.C. Sample ¹ Units of credit ¹		Male (N=50) (%)	Female (N=50) (%)	Total (N=100) (%)
<u>More than</u> U.B.C. Sample	a. by over 9 units	4	16	10
	b. by 7 to 9 units	4	4	4
	c. by 4 to 6 units	6	6	6
	d. by 1 to 3 units	20	22	21
	Total	34	48	41
<u>Equal to</u> U.B.C. Sample		20	14	17
<u>Less than</u> U.B.C. Sample	a. by 1 to 3 units	12	16	14
	b. by 4 to 6 units	10	6	8
	c. by 7 to 9 units	8	6	7
	d. by over 9 units	16	10	13
	Total	46	38	42
TOTAL		100	100	100

¹Units earned are based on those college courses completed with a grade of A, B, or C.

more units of credit than did their "pair partner" at U.B.C. This was an increase of five per cent over the eight month period.

0. Secondary/Post-secondary Grade Point Average Comparison (TABLE 16)

1. Twelve members of the college sample, and the paired university sample, had a secondary grade point average of 3.1 to 4.0 (that is, an "A" standing.) Six of these college students received a cumulative college grade point average of 3.0 or over, a comparable achievement to their pre-college effort. Only four of the twelve university sample achieved at U.B.C. a level comparable to their secondary grade point average of 3.1 or over.

2. In both samples, college and university, equal percentages of students (60%) achieved a post-secondary grade point average equal to or higher than their secondary school grade point average.

3. The secondary student with an average of A or B was more likely to receive comparable grades at the college than at the university.

TABLE 16

CUMULATIVE GRADE POINT AVERAGE FOR V.C.C. LANGARA CAMPUS SAMPLE
AND U.B.C. SAMPLE ACCORDING TO SECONDARY SCHOOL CUMULATIVE AVERAGE
(AS OF AUGUST 1977)

Secondary School Average	Post-Sec. Cumulative G.P.A.	Students Obtaining Indicated G.P.A.					
		V.C.C. LANGARA			U. B. C.		
		Male (N)	Female (N)	Total (N)	Male (N)	Female (N)	Total (N)
3.1-4.0 (A)	4.0	-	-	-	-	-	-
	3.0-3.9	-	6	6	1	3	4
	2.5-2.9	1	3	4	1	3	4
	2.0-2.4	-	-	-	-	1	1
	1.0-1.9	1	1	2	-	3	3
	0.0-0.9	-	-	-	-	-	-
2.6-3.0 (B)	4.0	1	-	1	-	1	1
	3.0-3.9	4	4	8	3	1	4
	2.5-2.9	3	11	14	5	7	12
	2.0-2.4	5	3	8	6	9	15
	1.0-1.9	4	3	7	4	2	6
	0.0-0.9	1	1	2	-	2	2
2.1-2.5 (C+)	4.0	-	-	-	-	-	-
	3.0-3.9	1	-	1	5	3	8
	2.5-2.9	8	2	10	6	4	10
	2.0-2.4	7	10	17	13	6	19
	1.0-1.9	10	2	12	1	3	4
	0.0-0.9	2	3	5	3	1	4
1.1-2.0 (C)	4.0	-	-	-	-	-	-
	3.0-3.9	-	1	1	-	-	-
	2.5-2.9	-	-	-	1	-	1
	2.0-2.4	-	-	-	-	-	-
	1.0-1.9	2	-	2	1	-	1
	0.0-0.9	-	-	-	-	1	1
TOTAL (1.1-4.0)	4.0	1	-	1	-	1	1
	3.0-3.9	5	11	16	9	7	16
	2.5-2.9	12	16	28	13	14	27
	2.0-2.4	12	13	25	19	16	35
	1.0-1.9	17	6	23	6	8	14
	0.0-0.9	3	4	7	3	4	7
		50	50	100	50	50	100

C. SUMMARY

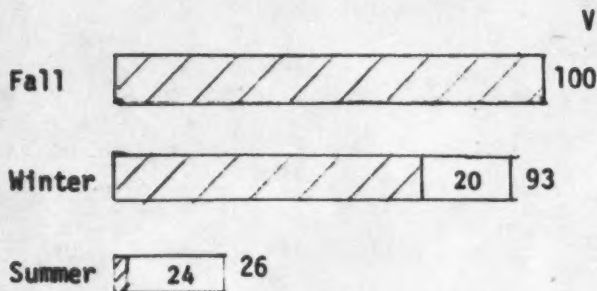
The following Table 17 provides a quick summary of some of the statistical results for the two samples of students. Following this table there are a series of graphical portrayals of these results in an attempt to give a more visual presentation to the numbers.

TABLE 17

COMPARATIVE SUMMARY OF V.C.C. LANGARA SAMPLE AND U.B.C. SAMPLE

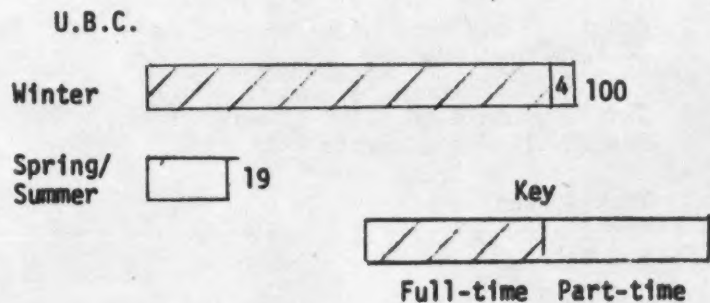
	V.C.C. LANGARA			U. B. C.		
	Male (N)	Female (N)	Total (N)	Male (N)	Female (N)	Total (N)
1. Enrollment on Full Time basis (prior to any withdrawal) - academic year (Sept. 1976 - August 1977)	46	40	86	49	47	96
2. Completed academic year (or part of) on Full Time basis	29	27	56	42	39	81
3. Sample members enrolled at original institution as of Sept. 1977	22	22	44	39	35	74
4. Transferred to other B.C. post-sec. institution (i.e. U.B.C., S.F.U., V.C.C.)	13	8	21	4	2	6
5. Total sample enrolled as of Sept. 1977 at U.B.C., S.F.U., V.C.C.	35	30	65	43	37	80
6. Completed academic year with <u>no</u> course withdrawals	21	22	43	39	38	77
7. Academic standing of 2.0 G.P.A. or over (V.C.C.) or 50% or over (U.B.C.)						
a. as of April, 1977	25	32	57	21	24	45
b. as of August, 1977	23	33	56	29	26	55
8. Academic standing of 2.0 G.P.A. or over (V.C.C.) or 50% or over (U.B.C.) for Full Time sample members						
a. as of April, 1977	24	25	49	21	24	45
b. as of August, 1977	23	28	51	29	25	54
9. 15 or more units of credit earned						
a. as of April, 1977	14	18	32	21	24	45
b. as of August, 1977	19	25	44	29	26	55
10. 15 or more units of credit earned by sample members who had attended						
a. East Side secondary schools	9	11	20	12	13	25
b. West Side secondary schools	10	14	24	17	13	30

STUDY PATTERN BY SEMESTER
(Figure 1)

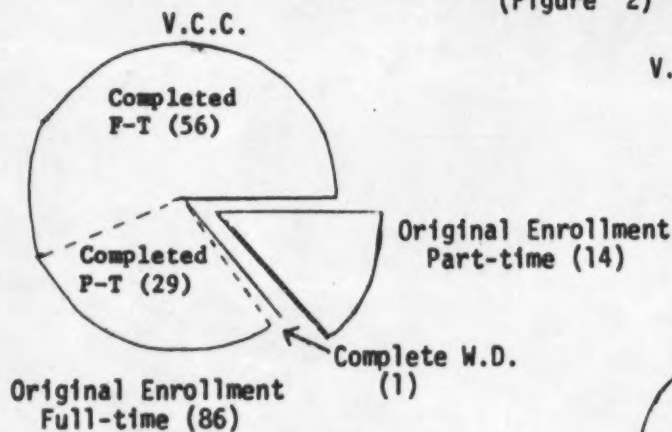


A trend from full-time original enrollment to a part-time study pattern became evident. College regulations facilitate part-time study.

With the exception of the Spring/Summer session (where full-time study is not possible) university study pattern remained a fairly constant full-time pattern.

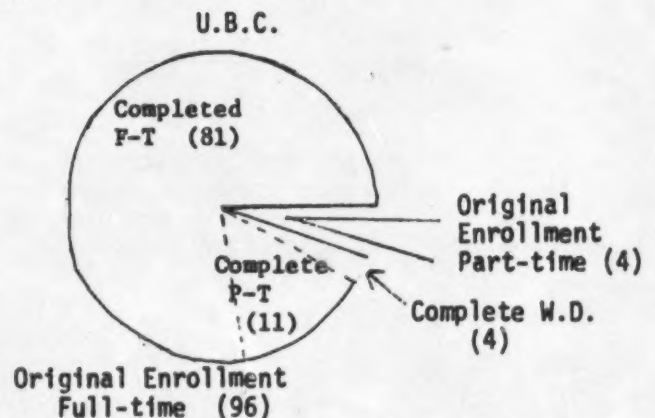


STUDY PATTERN FOR PERIOD SEPT.-AUG.
(Figure 2)

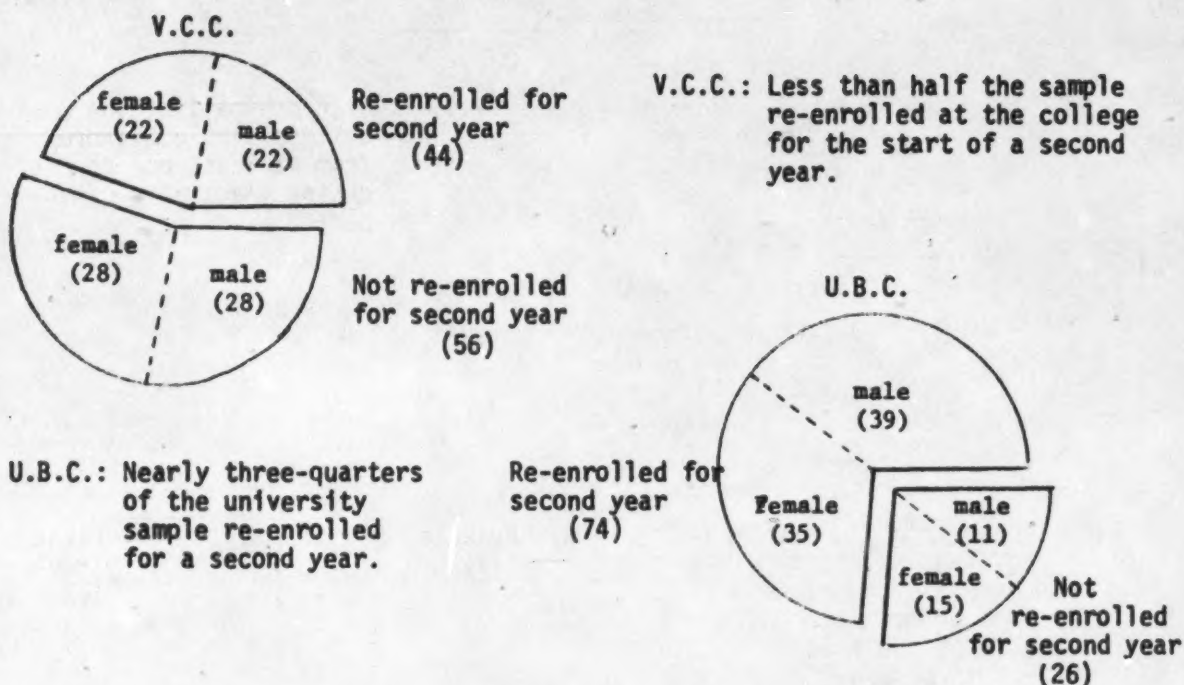


V.C.C. Over the academic year (Sept. to Aug.) a significant proportion of students who were originally enrolled as full-time students did not complete the year on a full-time basis.

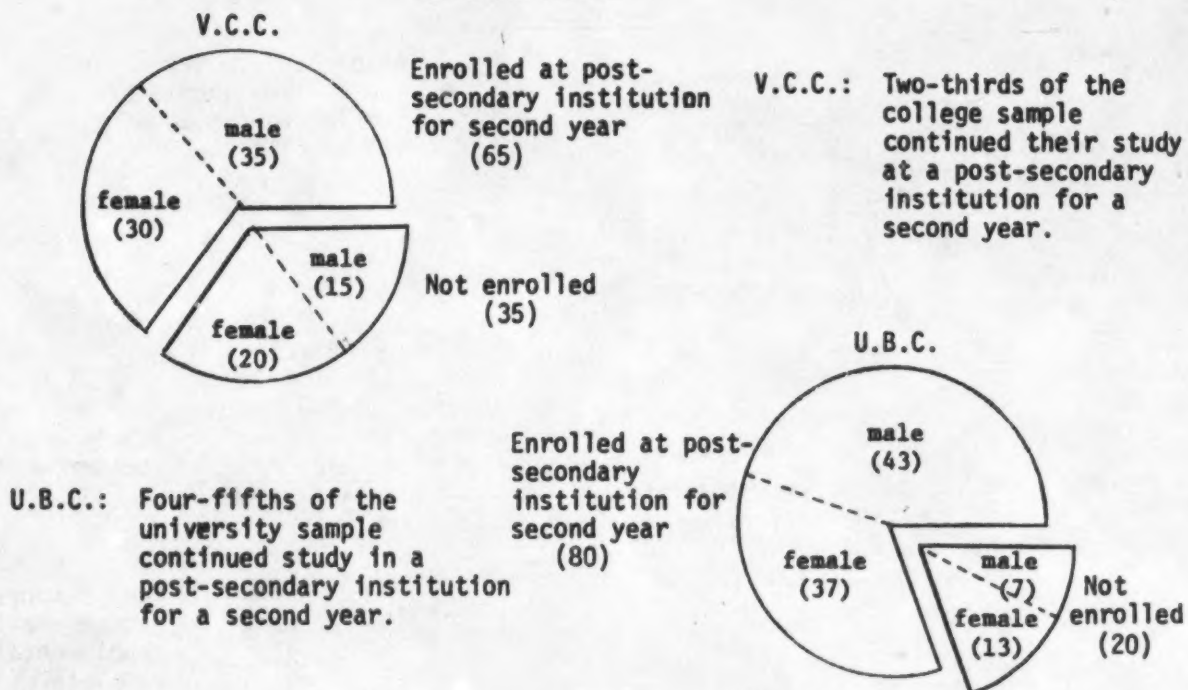
U.B.C.: The majority of students who enrolled on a full-time basis completed the year on a full-time basis



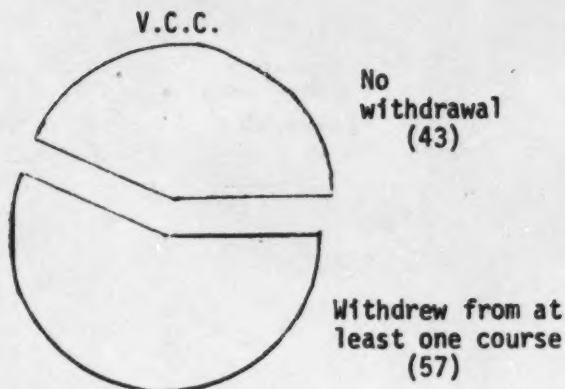
RE-ENROLLMENT AT ORIGINAL INSTITUTION
(Figure 3)



ENROLLED AT A POST-SECONDARY INSTITUTION FOR SECOND YEAR
(Figure 4)

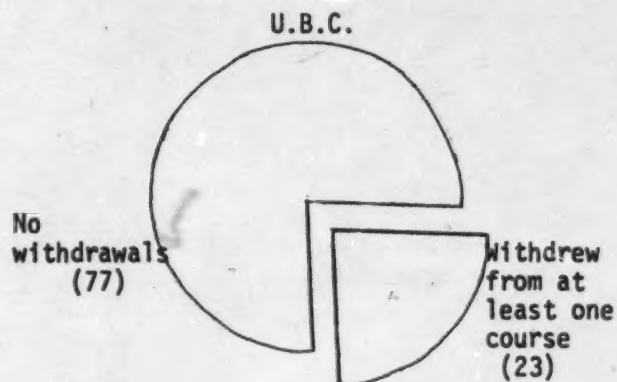


INDIVIDUAL STUDENT WITHDRAWAL FROM AT LEAST ONE COURSE
(Figure 5)

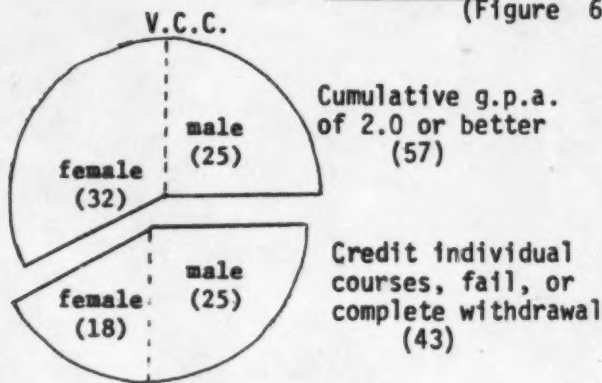


V.C.C.: Over one-half of the college sample withdrew from at least one course during the twelve month period.

U.B.C.: Less than one-quarter of the university sample withdrew from one or more courses during the twelve month period.

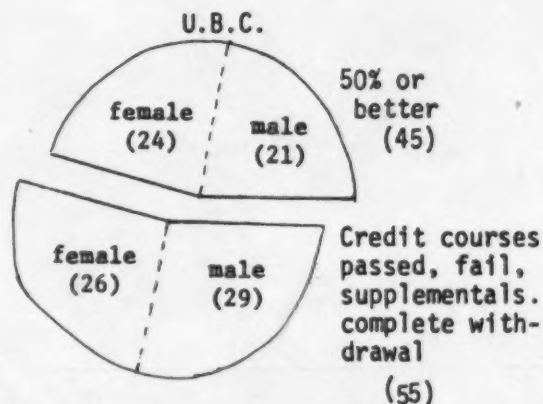


GRADE POINT AVERAGE OBTAINED AFTER EIGHT MONTHS
-AS OF APRIL
(Figure 6)



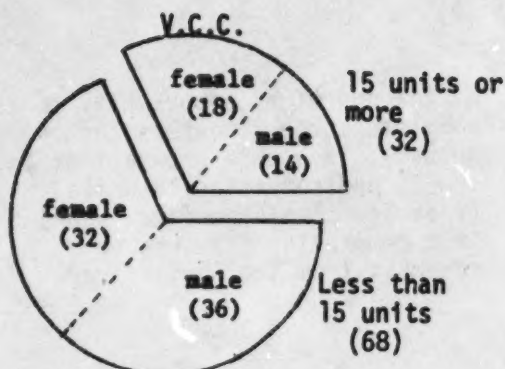
V.C.C: As of April, over one-half the college sample had a cumulative g.p.a. of 2.0 (C) or better

U.B.C.: As of April, less than one-half of the university sample had a standing of 50% (pass or g.p.a. of 2.0) or better.



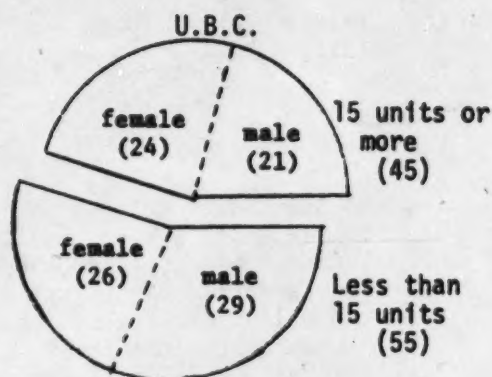
UNITS OF CREDIT EARNED AFTER EIGHT MONTHS
-AS OF APRIL

(Figure 7)



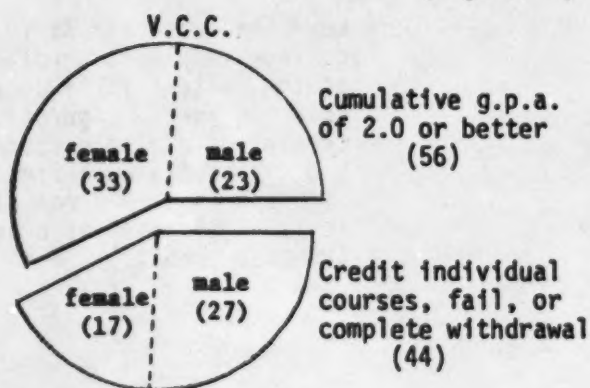
V.C.C.: At the end of two semesters of study (as of April) one-third of the college sample had earned at least 15 units of credit (that is, completed first year.)

U.B.C.: At the end of the Winter session (as of April) just under one-half the university sample had earned at least 15 units of credit (that is, a completed first year.)



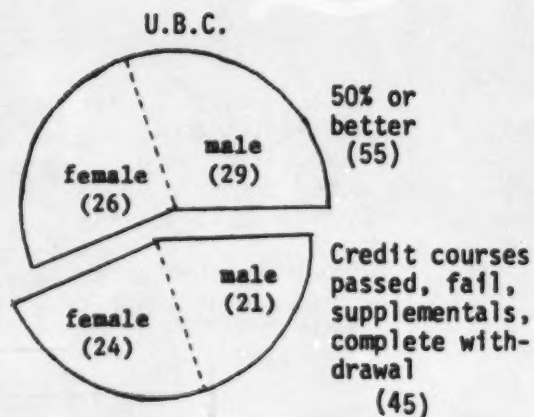
GRADE POINT AVERAGE OBTAINED AFTER TWELVE MONTHS
-AS OF AUGUST

(Figure 8)



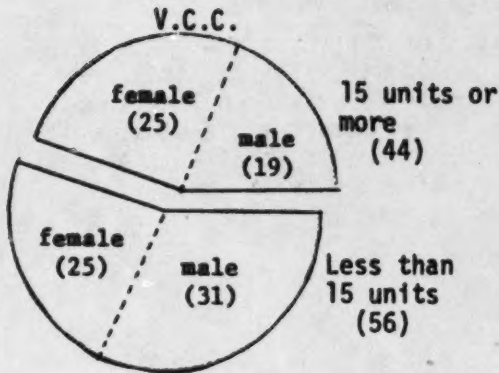
V.C.C.: As of August, over one-half the college sample had a cumulative g.p.a. of 2.0 (C) or better. This was comparable to the April figure.

U.B.C.: As of August, over one-half of the university sample had a standing of 50% (pass or g.p.a. of 2.0) or better. This was somewhat greater than found at April.



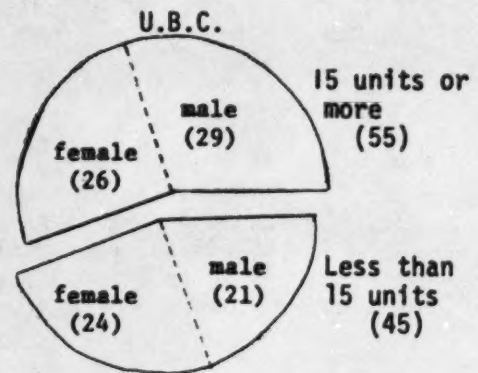
UNITS OF CREDIT EARNED AFTER TWELVE MONTHS
-AS OF AUGUST

(Figure 9)

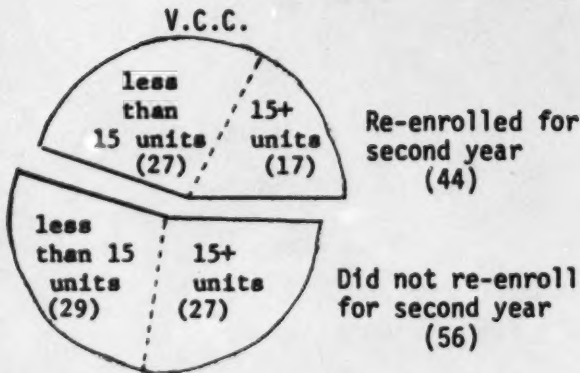


V.C.C.: At the end of an opportunity to complete three semesters (as of August), less than one-half of the sample had completed 15 units (that is, completed first year). This completion rate was up somewhat from the April figure.

U.B.C.: At the end of an opportunity to complete the Winter session, Spring/Summer session, and supplemental exams, just over one-half the university sample had completed the first year. This was also up somewhat from the April figure



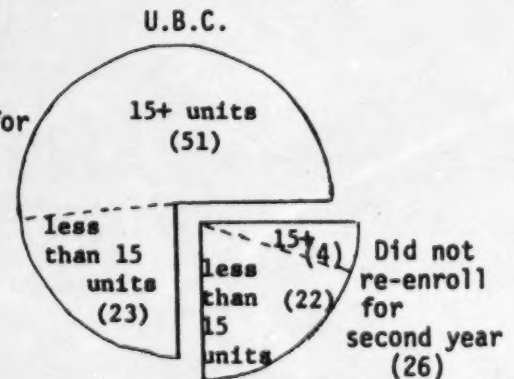
RE-ENROLLED AT ORIGINAL INSTITUTION FOR SECOND YEAR
(Figure 10)



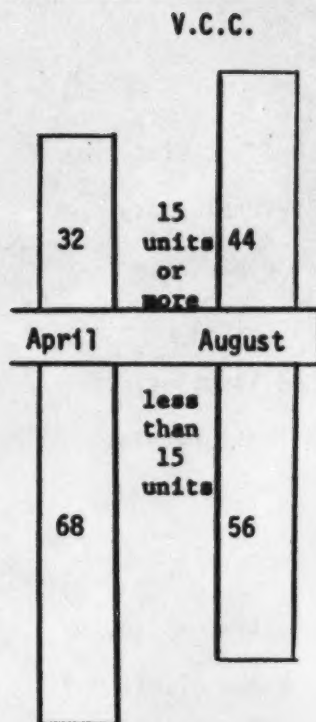
V.C.C.: Less than one-half of the college sample re-enrolled at the college for a second academic year. Approximately two-thirds of these students had not completed a first year standing (i.e. had not earned at least 15 units of university transfer credit.)

U.B.C.: Three-quarters of the university sample re-enrolled for a second academic year. Of these students one-third had not completed a first year standing (i.e. had not earned at least 15 units of credit.)

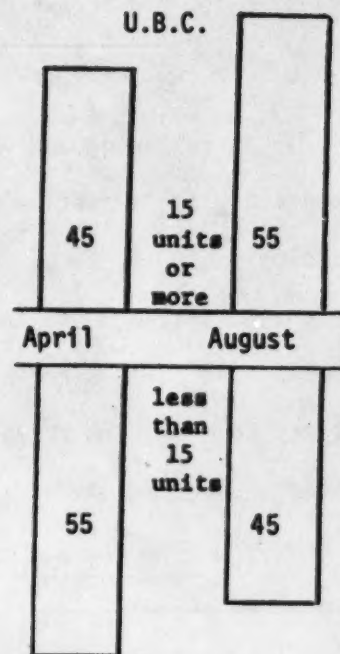
Re-enrolled for second year (74)



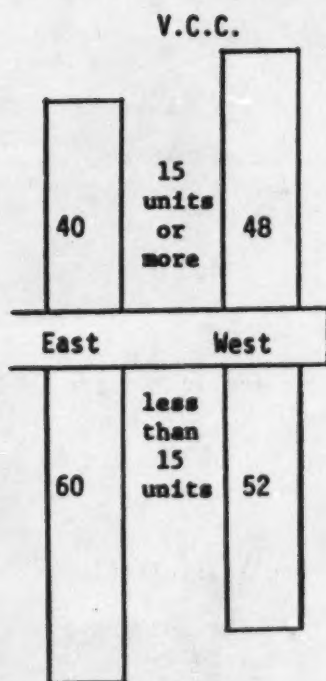
COMPARISON OF CREDITS EARNED IN RELATION TO
MONTHS OF STUDY
(Figure 11)



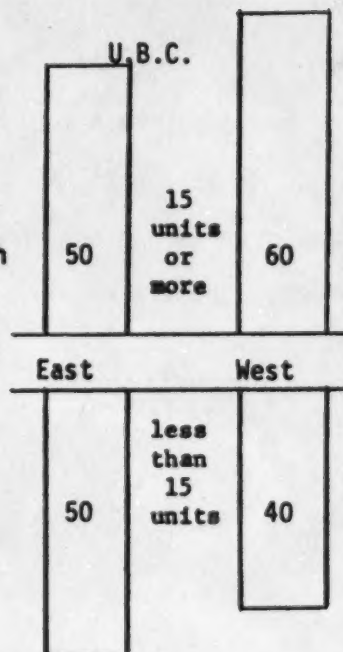
The spring and/or summer sessions enabled a greater proportion of both college and university students to complete the academic year with a full first year standing. In both months there was a higher completion rate for the university sample than the college sample.



COMPARISON OF CREDITS EARNED IN RELATION TO
SECONDARY SCHOOL ATTENDED
(Figure 12)



A greater proportion of the college and university sample from west side secondary schools completed a first year standing. Both east and west side students showed a greater tendency to complete first year standing at university than college.



D. CONCLUSIONS

In reviewing the data which this relatively narrowly defined study has generated, it is difficult to resist the temptation to draw several hasty conclusions. In fact, some of the data might be considered predictable by those familiar with the college concept. Other results are less predictable, even surprising. As the study is designed to be longitudinal, it may be premature to engage in conjecture. However, with the foregoing caveats, certain comments can be made.

1. The Samples

As the two sample populations are matched on four objective variables (school, sex, year of birth and secondary school grade point average), it may be presumed that they are reasonably equatable. This is not to deny, of course, that other variations in the samples undoubtedly exist. The most obvious of the latter group is the individual patterns of academic courses completed at secondary school and the individual variations in achievement in these courses, which would be "buried" within the grade point average.

However, until further analysis is completed it seems reasonable to assume that variations in performance between the samples at the post-secondary level are related to factors which have not been identified at this point.

It is with this assumption in mind that the following observations are made.

2. Variations in Enrollment Status

Whereas only 56 per cent of the college sample were enrolled full-time at the end of the first academic year, the equivalent figure in the university sample was 81 per cent. It is possible that the percentage difference is a

"self fulfilling prophesy." The colleges provide for easy alteration in a student's study pattern. He may change from full-time to part-time study with little difficulty. The college community promotes the image as an institution which gives equal status to part-time study and the curriculum is organized to allow for that study pattern, as is the academic calendar. Conversely, the university (particularly U.B.C.) is geared to the full-time student. It operates on one academic year and does little to encourage part-time study.

It may be suggested that students respond to the academic sanctions in which they operate. Not only does a student choose the college route knowing its policy with regard to part-time study, but responds to the special climate of the college during the year. Hence, college students change their program from full-time to part-time study with little hesitation when the need arises.

3. Course Withdrawals at College and University

A similar explanation to that outlined in the above section would apply to the considerable difference in course withdrawal rates between the two samples. Whereas only 43 of the original 100 college students completed the academic year with no withdrawals from courses, the equivalent figure within the university sample was 77.

While course withdrawal at university is possible, it is not encouraged, primarily because in most cases students sacrifice an entire year of study in the course from which they withdraw. College students lose much less on course withdrawal under the tri-semester system. It is far more likely that a university student in difficulty with regard to a course

would seek "deferment" perhaps under a "did not write" category.

4. Continuation to Second Year of Post-secondary Study

At September, the beginning of the second academic year of post-secondary study for the sample, it was possible to locate 65 college, and 80 university students, as being enrolled in post-secondary institutions. While assuming that some students may have transferred to institutions other than U.B.C., S.F.U., or V.C.C., it is clear that a far greater number of college students "disappeared" in comparison with their university counterpart.

Again, one might conclude that students enrolling in the college were less committed to post-secondary study than those at university. The college represented a less expensive, less threatening and less complex educational experience to students who may be confused as to their academic future. The college itself has promoted that image and the rate of "non returning" students suggests that their behaviour is in accord with the nature of the institution.

5. Academic Standing

In comparing grade point averages earned by the two samples, the comparison is based upon the assumption that a 2.0 (C grade) at college is equivalent to a "pass" (50%) at U.B.C. Transfer of credit arrangements between institutions tend to be based upon the same assumption, although one might debate the practice.

The data show little difference in the performance of students in the samples, either on part or full-time status. Clearly, university students tend to use the Spring or Summer sessions to correct academic inadequacies and raise their average. College students apparently do not

use the Summer semester for the same purpose. Summer semester seems an opportunity only to earn more credits.

With regard to credits earned in the academic year, university students have an advantage over college students. However, this phenomenon is an outgrowth of the tendency for college students to change to part-time status and to withdraw from courses.

6. Location of Secondary Schools

In both college and university samples, the west side secondary school graduates tended to earn more academic credits over the academic year than their east side counterparts.

Again in the area of conjecture, one might suggest that the difference in socio-economic status between the two groups of secondary graduates will have an indirect effect upon this phenomenon. Graduates of east side schools, in need of more financial support, will seek part-time employment and hence tend to shift to a part-time study pattern. Inevitably, the practice leads to an accumulation of fewer academic credits than their west side counterparts.

7. Relation between Secondary School and Post-secondary Achievement

Admission standards set by universities are based upon an assumption that secondary school grades are reasonably predictive of success at university. In the cases of both samples examined in the study, a reasonable relationship between pre-college and university grades with college and university achievement was found.

It was noted (Table 16) that there seemed to be a somewhat closer relationship in the case of students in the college sample. The correlations

between secondary school and college achievement, and secondary school and university achievement were +0.81 and +0.74 respectively.

One might hypothesize that the closer relationship between the secondary school-college learning environment would account for the difference. College students are in smaller classes with close student-faculty contact than is generally the case with university students. Presumably, students who achieve well in school will also do well in the college environment. The lower faculty dependent instructional format at university may well give more independent students an opportunity to achieve at a higher level. The converse may also be true.

8. Differences in Academic Performance by Male and Female Students

The study reveals one generally consistent theme in the various dimensions which are explored. That is, the tendency for female students to achieve at a higher level than their male counterpart.

In terms of secondary school grade point average, females were superior, irrespective of school location, or in regard to both the college and the university samples. By academic standing at the completion of one year in post-secondary education, the females were clearly superior in the case of the college sample, although there appeared to be little difference with the university sample. A similar pattern was found in the case of number of credits earned.

Whatever the factors which contribute in school to female success in academic endeavours by comparison with males, these same factors appear to be still active at the college level. It will be interesting to explore whether the trend will continue into senior years.

In Conclusion

Vancouver Community College, Langara Campus, has developed and promoted a learning environment consistent with community college philosophy. It is an environment which encourages flexibility - flexibility in terms of enrollment pattern, by part or full-time, flexibility with respect to academic calendar and to the opportunity for students to easily modify their study pattern. Furthermore, the college has emphasized the opportunity for students to examine their motivation for post-secondary study within a modest commitment both in terms of finances and time.

One might presume that students, facing various options in post-secondary study, will choose the college route with the foregoing in mind. Not only is the choice made on that basis, but students tend to respond to the "environmental press" and act in accordance with the style of institution. Clearly, this phenomenon is characterized in the results of this study.

By comparison, the University of British Columbia operates on a more traditional format. Undergraduate students are normally expected to attend full-time, carrying a full load and seriously consider the consequences of course withdrawal. The commitment in financial terms is far greater than for college students and, presumably, students who select university are more definite in their academic goals. Again, the assumption is defended in the results of the study.

In a sense it must be recognized that the educational styles of the two options are to the students' benefit. The college provides a far more acceptable and realistic alternative for a certain type of student. The university is the first choice for a different student. To this extent the community college is meeting one of the highest priorities for its establishment.

E. APPENDIXES

- 50 -

APPENDIX A

EQUIVALENCIES USED IN CALCULATION OF SECONDARY
SCHOOL GRADE POINT AVERAGE

Secondary school letter grade	Secondary school percentage	Equivalent grade point average	Secondary school letter grade	Secondary school percentage	Equivalent grade point average
A	86	4.0	C	60	2.0
	85	3.9		59	1.9
	84	3.9		58	1.8
	83	3.8		57	1.7
	82	3.7		56	1.6
	81	3.6		55	1.5
	80	3.5		54	1.4
	79	3.5		53	1.3
	78	3.4		52	1.2
	77	3.3		51	1.1
	76	3.2	P	50	1.0
	75	3.1		49	0.9
	74	3.1		48	0.8
B	73	3.0		47	0.7
	72	2.9		46	0.6
	71	2.8		45	0.5
	70	2.7		44	0.4
	69	2.6		43	0.3
	68	2.6		42	0.2
	67	2.5		41	0.1
C+	66	2.4	F	40	0.0
	65	2.4			
	64	2.3			
	63	2.2			
	62	2.1			
	61	2.1			

APPENDIX B

CALCULATION OF UNIVERSITY GRADE POINT AVERAGE

The university standings for courses taken by the students were converted to a grade point average using the following numerical equivalents.

First Class	=	4	(80% - 100%)
Second Class	=	3	(65% - 79%)
Pass	=	2	(50% - 64%)
Fail	=	0	(0% - 49%)

Standings such as "withdrawal," "did not write," "deferred," were not included in the calculation of the grade point averages.

The above figures were assigned to the university standings to make the calculations comparable to the college calculations which have the following numerical equivalents.

Grade of A	=	4
Grade of B	=	3
Grade of C	=	2
Grade of P	=	1
Fail	=	0

The college grade of W (withdraw) is not included in calculation of a college grade point average.

APPENDIX C

DEFINITIONS

1. Academic Standing

College:

College credit is granted for courses completed with a grade of A, B, C, or P (pass). As a general rule the grade of "P" (pass) is not considered of sufficient academic standing to grant transfer credit to a university. In this report, grades of A, B, and C are indicators of successful completion of the course and equatable to the university standings of "first class," "second class," and "pass."

"Credit for courses with A, B, or C"

The university, in addition to the standings of "first class," "second class," "pass," and "fail" have a number of categories that are not duplicated by the college. Two of these university categories are:

- a. "credit for courses passed," and
- b. "supplementals granted."

To more accurately equate college and university academic standings, a college category was created for this report. This category was "Credit for courses with A, B, or C."

A college student on a full or part-time program who had received an A, B, or C in at least 60 per cent of the courses but not all of the completed courses would be placed in this category. For example:

- a. student enrolled in five courses (full-time)
- b. received college grades of B, C, C, P, and F
- c. calculated g.p.a. = 1.60
- d. at least three courses (60%) successfully completed (P and F grades are considered as unsuccessful completion)
- e. standing recorded as "credit for courses with A, B, or C" rather than in the g.p.a. category of 0.0-1.9.

Further;

- a. student enrolled in four courses (part-time)
- b. received grades of C, C, P, and F
- c. calculated g.p.a. = 1.25
- d. the two courses (50%) successfully completed is less than the required 60 per cent
- e. standing of 1.25 is recorded in the g.p.a. category of 0.0-1.9.

The "Credit for course with A, B, or C" is as close as possible to the university standing "Credit for courses passed."

b. University:

"Credit granted for courses passed" is assigned in cases of a full or partial program where at least 60 per cent of the program is passed and no supplemental privileges are granted.

"Supplemental(s) granted" is used in accordance with faculty supplemental examinations. There is no college equivalent to this university standing.

2. Enrollment

a. Original Enrollment:

Based on the number of courses appearing on the official transcript regardless of subsequent disposition.

b. Completed Enrollment:

Calculated on number of courses of "original enrollment" minus courses listed as "withdrawal" or "Did not write" or "Deferred." Note that a student with a course standing of "pass" at the college level, or "fail" at college or university is defined as having completed the course (although such completion was not successful.)

3. Grade Point Average

a. Secondary School:

Based on the policy of U.B.C. and calculated on all subjects listed on secondary school transcripts for grades eleven and twelve. (Appendix A for individual equivalencies.)

b. College (V.C.C.):

Semester g.p.a. - calculated for all grades given (including P grade and fail grade) but excluding the W (withdrawal) grade.

Cumulative g.p.a. - calculated for all semesters in attendance using the same criteria as for semester g.p.a.

c. University (U.B.C.):

Session g.p.a. calculated for course standings of "first class," "second class," "pass," and "fail" using the numerical equivalents of 4, 3, 2, and 0 respectively. It should be noted that the college "pass" category is not equatable to the university "pass" standing.

The cumulative g.p.a. is calculated for all sessions but does not include supplemental examination results.

4. Matched Pairs (pair partner)

One college and one university student matched by sex, year of birth, secondary school attended, and secondary school grade eleven and twelve grade point average. In other words two students, one at college and one at university, who may be considered identically matched on the four objective variables listed.

5. Study Pattern

a. College:

The college (V.C.C.) operates on a tri-semester system, whereby a student may enroll in any or all of the three semesters available, and do so on a full-time or part-time basis.

1. Semester Study Pattern:

For this study a full-time semester enrollment category is defined for a student who is enrolled in five or more college level courses (prior to any withdrawals.) This definition differs slightly from the college's in that the college has defined a full-time student as one who enrolls in four or more courses. The five course load definition was struck for this study in order to be equatable to the university (U.B.C.) Consequently, a part-time course load is defined as four or fewer courses.

11. Academic Year Study Pattern:

While a student may enroll for only one semester during a twelve month period, that is, the academic year from September to August, it is more likely that he will enroll for two semesters and sometimes even three semesters.

In these cases a slightly different procedure is needed to define the study pattern. In the case of the academic year, a college student is defined as full-time if he has enrolled during his semesters of attendance in at least ten courses during the 12 month academic year.

For example:

A student enrolled for only one semester with five courses, and subsequently "withdraws" from one course, still would be identified as on a full-time study pattern.

A student enrolled for five courses in the Fall semester, three courses in the Spring semester, and two courses in the Summer semester, would be classed for the academic year as a full-time student since a total of ten courses were taken, even though the semester enrollment status is only full-time for the Fall.

b. University:

Full-time and part-time status for the university was based on the number of units in which a student was originally enrolled. In other words

a total of 15 units would indicate a full-time enrollment status for the time period under consideration.

6. Units of Credit

a. College:

Units of credit for this study were only recognized for college subjects in which a final grade of A, B, or C had been awarded.

The college grants three units of credit for a semester course, that is, four months of study. The university grants three units of credit for a session course, that is, eight months of study under usual conditions.

To be equatable for this study, units were calculated on the basis of 1.5 units for each college course. In other words, two college history courses, four months of study for each would be granted two times 1.5 units, that is a total of three units and would be considered as equivalent to eight months of university study and the university awarding of three units.

b. University:

The university awards in most circumstances a total of three units for the successful completion of a course during a session. In those instances where the session hours involved in study are less or greater than normal, the university grants more than or less than the usual three units.

For example, certain university courses enable the student to earn as many as nine units of credit for the course. This would be equivalent to six college courses where 1.5 units of comparable credit had been assigned.

7. University Transfer Program

A student enrolled in a college level academic program for which recognized transfer credit is granted by the university, would be classed as a "university transfer" student.

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